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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,236	01/29/2002	Akira Murakami	330-243	2265
23117	7590	07/02/2004	EXAMINER	
NIXON & VANDERHYE, PC 1100 N GLEBE ROAD 8TH FLOOR ARLINGTON, VA 22201-4714			LOPEZ, CARLOS N	
			ART UNIT	PAPER NUMBER
			1731	

DATE MAILED: 07/02/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/058,236

Applicant(s)

MURAKAMI, AKIRA

Examiner

Carlos Lopez

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1) Claims 1-3, and 6-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Murakami et al JP 10-236831 (for which US 6,442,975 is taken as the JP equivalent). Murakami discloses a method for making a glass substrate for a recording medium. As shown in figure 8B, molten glass 42 (deemed as glass in a soften state) is press molded by molds 17 and 14. The glass is pressed molded to have a disk shape with a thickness of 2-4 mm, which reads on instant claims 8-9 (Col. 2 lines 64ff). As shown in figure 10 the circumferential edge of glass blank 44 does not touch the mold dies 17 and 14 as it is being pressed formed. Additionally the glass substrate does not have a notch.

Paragraph 21 of the specification defines “free surface” as follows:

“The free surface is a surface to which nothing from the molding surface of the mold is transferred, so that no processing mark existing in the molding surface is transferred”.

Since the Murakami's molds are deemed as upper and lower mold members 17 and 14, each having its corresponding mold surface which do not touch the surrounding edge of the blank, it would thus reason that the surface of the surrounding edge of the blank of

Murakami is considered a "free surface" since it meets applicant's definition of not having the molding surfaces of molds 14 and 17 touching the surrounding edge of the blank that would create processing marks caused by the mold surfaces.

As for claim 2, the claimed flat front surface, reverse surface and a surface formed of the surrounding edge portion is deemed respectively as the top surface, bottom surface and edges surface the Murakami's glass blank 44.

As for claim 3, Murakami teaches that the glass substrate blank 44 has a thickness greater than the final product, which is the claimed glass substrate (Col. 15, lines 59-60).

As for claim 6, the soften glass is supplied to the lower mold as shown in figure 7A.

As for claim 7, the molds have a temperature of 250-450 degrees Celsius for the upper mold and the lower mold having a temperature 50 to 100 degrees lower than the upper mold wherein the temperature of the softened glass is 1200 degree Celsius (Col 10, lines 50ff).

2) Claims 3-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Suzuki (JP 10-194760). As shown in figures 3-5, molten glass 42 (deemed as glass in a soften state) is press molded by molds 21 and 31. As shown in figure 5 the circumferential edge of glass blank 12 does not touch the mold sides 21 and 31 as it is being pressed formed but instead it touches the mold sleeve 36.

Since the Suzuki's molds are deemed as upper and lower mold members 17 and 14, each having its corresponding mold surface which do not touch the surrounding edge of the blank, it would thus reason that the surface of the surrounding edge of the blank of Murakami is considered a "free surface" since it meets applicant's definition of not having the molding surfaces of molds 21 and 31 touching the surrounding edge of the blank that would create processing marks caused by said mold surfaces.

As for claim 3, since the substrate is grinded and polished to form a final glass substrate, it would be inherent that the intermediate substrate blank is thicker than the final glass substrate.

As for claim 4, as shown in figures 2 and 7, the small thickness portion is larger than the thicker portion.

As for claim 5, figures 2 ad 7 show a thicker portion at the middle and edges of the substrate blank.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3) Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murakami et al JP 10-236831 (for which US 6,442,975 is taken as the JP equivalent). Murakami teaches that the glass blank may be grinded and polished (Col. 7, lines19ff). However, Murakami is silent on cutting the glass blank. The Murakami method is for

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the production of a recording medium such as a CD. Since CDs currently have a hole at the center it would be obvious to a person of ordinary skill in the art at the time the invention was made that a cut would be expected on the glass blank disc in order to form the hole of an information recording medium CD.

In regards to claim 13's limitation of forming an information layer on the substrate, Murakami teaches of laminating a magnetic layer on the substrate (Col. 7, line 57ff).

As for claim 12, Murakami teaches of using crystallized glass as the glass substrate, see col.7-8, and hence would require a heat treatment.

Response to Arguments

Applicant's arguments filed 4/09/04 have been fully considered but they are not persuasive. Applicant argues that the cited references fail to disclose a "free surface" on the blank. However as noted above, Paragraph 21 of the specification defines "free surface" as follows:

"The free surface is a surface to which nothing from the molding surface of the mold is transferred, so that no processing mark existing in the molding surface is transferred".

Since the Murakami's and Suzuki's molds have upper and lower mold members as recited in the instant claims. Each mold includes its corresponding mold surface which does not touch the surrounding edge of the blank. It would thus reason that the surface of the surrounding edge of the blank of Murakami is considered a "free surface" since it meets applicant's definition of not having the molding surfaces of molds 14 and 17 touching the surrounding edge of the blank that would create processing marks

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caused by the mold surfaces. While applicant may argue that the "free surface" includes no contact between the sleeves of the molds as done in the prior art, said limitation is neither claimed nor included by the definition of a "free surface". The definition of a "free surface" does not exclude the possible contact between sleeves of the mold but merely requires that the mold surface of the molds not contact the surrounding edge of the blank, which as shown above is already taught in the prior art.

In regards to applicant's argument that "While it is true that the circumferential edge of glass blank 44 does not touch the mold dies 17 and 14, it does touch the cylindrical die 36. That is, the circumferential edge of glass blank 44 is defined by the cylindrical die 36 and does not have a free surface." While it is agreed that it touches the sleeves 36, the definition of "free surface" is still met by Murakami as noted above since the upper and lower mold surfaces of upper and lower mold member are not in contact with the surrounding edge of the blank. The instant claim only requires that there be no contact of the mold which only has an upper and lower mold member. If applicant now argues that a third mold member, mold sleeves, such as that disclosed by Murakami, does not contact the surrounding edge of the blanket, said limitation is not claimed.

Applicant is reminded and pointed to the fact that "free surface" only refers to marks caused by the mold surface which is only formed by an and upper and lower molds as instantly claimed and not marks possibly made by a third mold member, such as mold sleeves which is not claimed.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

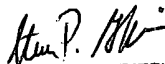
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carlos Lopez whose telephone number is 571.272.1193. The examiner can normally be reached on Mon.-Fri. 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571.272.1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CL


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